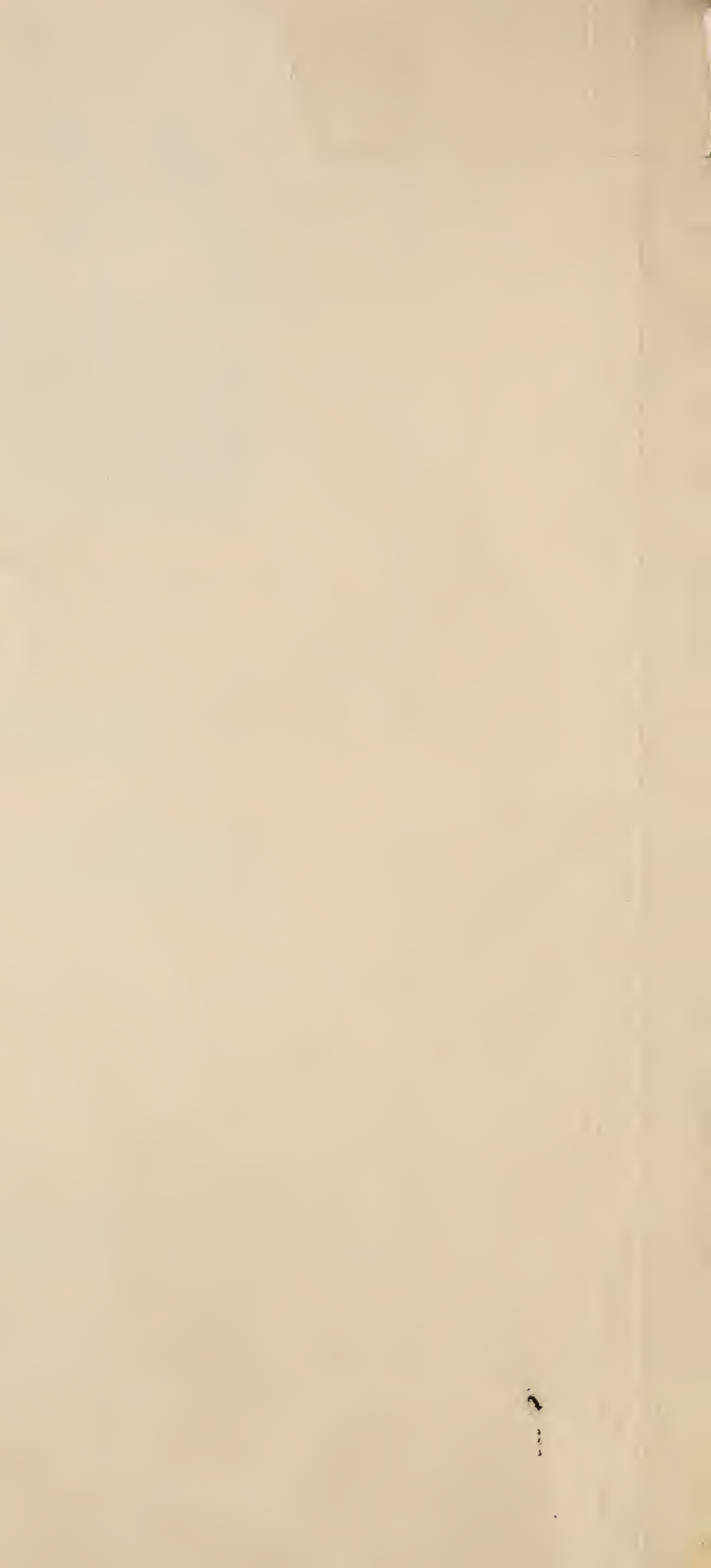


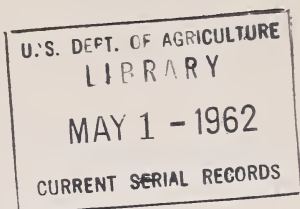
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AFRICAN HORSESICKNESS

Agricultural Research Service
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African Horsesickness

WHAT IT IS AND WHERE IT IS--African horsesickness is a highly infectious virus disease of equines. It causes death losses as high as 90 percent among affected animals. It is transmitted not by animal contact but by biting gnats or midges (Culicoides).

African horsesickness has been present in Africa for several hundred years. It remained confined there until 1959--when it leaped its bounds and in short order was reported in Iran, Pakistan, and Afghanistan. Since then African horsesickness has established itself in a broad belt of infection extending from the Mediterranean to Central Asia and eastward throughout India.

This recent great outbreak has increased the locations from which this disease can be carried either by infected insects or animals to unaffected countries, including the Americas. Its rapid spread and devastating effect in Asia and the Middle East within 2 years illustrates the necessity for alertness in the recognition of unusual diseases in the horse and mule population of America.



KINDS OF HORSESICKNESS: SYMPTOMS AND SIGNS--The signs of horsesickness may be extremely variable, depending on which of the four forms the disease takes. Horses, more than mules or donkeys, are likely to show serious symptoms. Consequently, in an area populated predominantly by mules or donkeys, the occurrence of a mild form of the disease might result in considerable spread before it is recognized.

(1) The pulmonary form--In this form of the disease, generally acute, distinct signs of serious respiratory difficulty appear within 3 or 4 days of infection. Breathing becomes labored and rapid and there is a distinct rise in temperature. As the disease progresses, the animal is seized by paroxysms of coughing and large quantities of yellowish fluid may be discharged from the nostrils. The head and neck are extended, ears droop, and severe sweating is seen. Curiously, an affected animal may eat until shortly before death. Finally, the animal chokes, staggers, and falls discharging a great volume of frothy white material. Occasionally, recovery will follow the serious signs of illness, but difficult breathing will be apparent for a long time.

(2) The cardiac form--In this form the signs of the disease are more characteristic and the consequences less severe. Development of signs, including temperature rise, occur more slowly and recovery is more common. Distinct and typical swelling in the region of the head, neck, and chest are classical signs of the disease. Swellings over and above the eyes are marked and the eyelids and lips are swollen from infiltration of fluid. Animals show signs of distress and abdominal pain. In fatal cases, there are distinct signs of heart failure. Affected animals, however, as in the pulmonary form of the disease, show the same desire to eat.

(3) Mixed form--In the mixed form of the disease, symptoms common to each of the previously described forms develop rapidly. Infection often may not be diagnosed until death.

(4) Horsesickness fever--Horsesickness fever is a mild and frequently undetected form of the disease. The only indications may be a rise in temperature which subsides rather quickly, an accelerated pulse, slight labored breathing, and slight impairment of appetite.



The cardiac form of Horsesickness - with swellings above the eyes and in eyelids from infiltration of fluids.

PROBLEMS IN THE SPREAD OF AFRICAN HORSESICKNESS--African horsesickness is not spread by contact between animals. Biting gnats, as vectors, are indispensable intermediaries in transmission. These insects are universal in distribution and capable of extensive dispersion by air currents or in trains, ships, and planes. If infected insects were introduced into the Americas by ship or aircraft, they would have little difficulty in finding equine hosts and establishing the disease in this hemisphere. In addition to receptive horses and mules, experience in Africa and the recently infected Asian areas indicates the possibility of unknown animal reservoirs--inapparent carriers of the disease.

As is the case with all diseases introduced into areas without previous occurrence, vaccines are not readily available for preventive work. Inevitably, the problem of obtaining, preparing, and using such vaccines takes time. Thus, once established in the Western Hemisphere this disease could become widely distributed and costly to control and eradicate.



PREVENTIVE MEASURES

A. Noninfected countries

- * Prohibition against shipment of animals from known infected countries.
- * Adequate preshipment testing and quarantine of all equines from suspected infected areas.
- * Adequate quarantine and testing of all equines at ports of entry.
- * Strict adherence to measures used for destroying insects on aircraft arriving from infected areas.

B. Infected areas

- * Stabling of equines at night to guard against biting by the night flying gnats during seasons of insect activity.
- * Regular use of effective insecticide sprays on animals and in stables.
- * Immediate destruction and burial of infected animals.
- * Restriction of animal movement from suspected infected areas.
- * Insect control in breeding areas, such as ponds, lakes, and slow moving waterways.
- * Vaccination of all equines within a specified radius of suspected infection.

THE CONSEQUENCES OF AFRICAN HORSE-SICKNESS--African horsesickness has recently demonstrated that it is one of the most explosively invasive animal diseases of modern times. Its spread over thousands of miles in a relatively short time, with death losses among equines estimated at more than 300,000 head, graphically depicts its economic importance. Effective control in any area will require alert recognition of African horsesickness and prompt full-scale combat measures to prevent its disastrous spread.



Growth Through Agricultural Progress

Prepared in
Animal Disease Eradication Division
Agricultural Research Service
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